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ABSTRACT

Project SEE (Specific Education of the Eye), a three-year old ESEA Title III funded program, is stated to be designed to train kindergarten and Grade 1 children in perceptual motor skills by developing visual perception through a series of sequenced visual exercises which the child analyzes, elucidates on, relates to, and replicates. The development of visual sensory skills provided by the project is regarded as a basic preparation for learning. Curriculum materials used include visuals; "out of sight"-a game played like bingo; and, the most recent development, that of three-dimensional visuals called tactuals. For evaluation purposes, children exposed to the program have been pre- and post-tested with a staff designed test, the Knobler Perceptual Development Series Test. Supplemental subjective measures of the program's results have been obtained through a survey of teachers' opinions and observations of childrens' responses. Recognized as innovative and exemplary by the Office of Program Development, New Jersey Department of Education, Project SEE cites as preliminary findings its extension from pre-school to eighth grade and its usage by pre-reading and remedial reading programs. (AM)

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Project SEE

Board of Education Union N.J. 07083

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The development of Project SEE was a cooperative effort of the Union Township Board of Education and the Office of Program Development, Division of Research, Planning and Evaluation, New Jersey State Department of Education.

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Title III Project 71-084

Board of Education, Union, N.J. 07083

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ACKNOWLEDGEMENTS

Many factors have contributed to the success of the **SEE** project, not the least withstanding, the time, effort and interest of many people in the Union Township school district. We would be remiss if we did not acknowledge and express our most sincere appreciation to ...

... the **teachers** of the **kindergartens** and **first grade classes**, who participated in the program, for their patience and forebearance - for opening their classes to observation and to the scrutiny of many visitors and for their many constructive comments.

... special thanks to **Betty Frino, Mary Ulrich, Patricia Hanily** and **Charlann Low**, the teachers of the pilot first and second grade classes for their willingness to take the uncharted path and mark the trails leading to our success.

... to **Wilma Lake**, district elementary school helping teacher, for her tireless support and assistance.

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... to **Michael Bury**, principal of Washington School who, as advisor to the district knodergarten teachers, offered invaluable assistance.

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Milton Knobler
Estelle Mones
Arlene Schor

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PERCEPTION IS...

Perception is being. Perception is seeing what is looked at, hearing what is listened to, smelling what is smelled. Perception is the total interaction of the individual with an experience. Perception is the pre-requisite for learning. PERCEPTION IS PROJECT SEE.

YEAR ONE

The program was initiated under the original title,**'Learning to See is Seeing to Learn,'** in 1971 on an experimental/control basis. Our population, then consisted of fifty children in two experimental kindergarten classes matched with another fifty children in two control classes. Our goal, then, was to make the children more visually aware and, to this end, we developed, what is now designated, our **Level I program.**

We were, we found, in a heretofore unexplored area of education. The obvious precedents, the works of Piaget, Montessori and Arnheim, were of little help since their writing centered on the native rather than the educated responses of children. Hence we had no insight as to whether children could go beyond what has been construed as normal capabilities. Our approach was simplistic - to the point of being naive. We were not psychologists, physiologists or sociologists searching the inner workings of children for the 'whys' - we were educators looking to improve the learning/teaching situation. In retrospect, it was our simple, naive approach which was to lead to our success. It is interesting to note, that though our goals have changed over the life of the program, our original design and format has remained much the same.

In time, our original title, 'Learning to See is Seeing to Learn,' was changed to **'SEE,'** an acronym for **'Specific Education of the Eye.'** This, we were to find, was a misnomer since it quickly became evident that **we were educating the mind and not the eye!**

LEARNING IS...

To teach to learn is an interesting theory - especially in a system where the question might be asked, '... to learn what?' Learning has always been associated with the transmission of information, but, is learning the result of the reception of information or of its processing? If we logically conclude that data must be processed to be meaningful, it would follow that we must prepare children for learning before we can expect them to do so.

How long would it take a child to learn how to learn? When would the skills we were in process of developing become part of the child? These were the questions we asked ourselves as we entered the second year of **PROJECT SEE.**

To teach children how to learn we first had to define, what was to us, the **process of learning. Learning** was seen as the **manifestation of the meaningful interaction of the learner with an experience. We saw the experience as being existant - to be conveyed to the learner through the senses - there to be processed in light of the learner's prior experiences to give meaning to the particular experience.** It followed, then, that if we were to prepare children to **learn** we had to first **develop their sensory skills** to the point that would allow for an in-depth acceptance of the stimuli of experience - and - secondly we had to establish a bank of **prior experience** which would give meaning to the new experiences offered through the program.

Our pilot kindergarten experimental and control classes were divided into four first grade classes of:

1. one group of children from the experimental kindergartens
2. one group of children from the control kindergartens
3. one group combining children from both experimental and control kindergartens to be an experimental first grade
4. one group combining children from both experimental and control classes to be a control first grade.

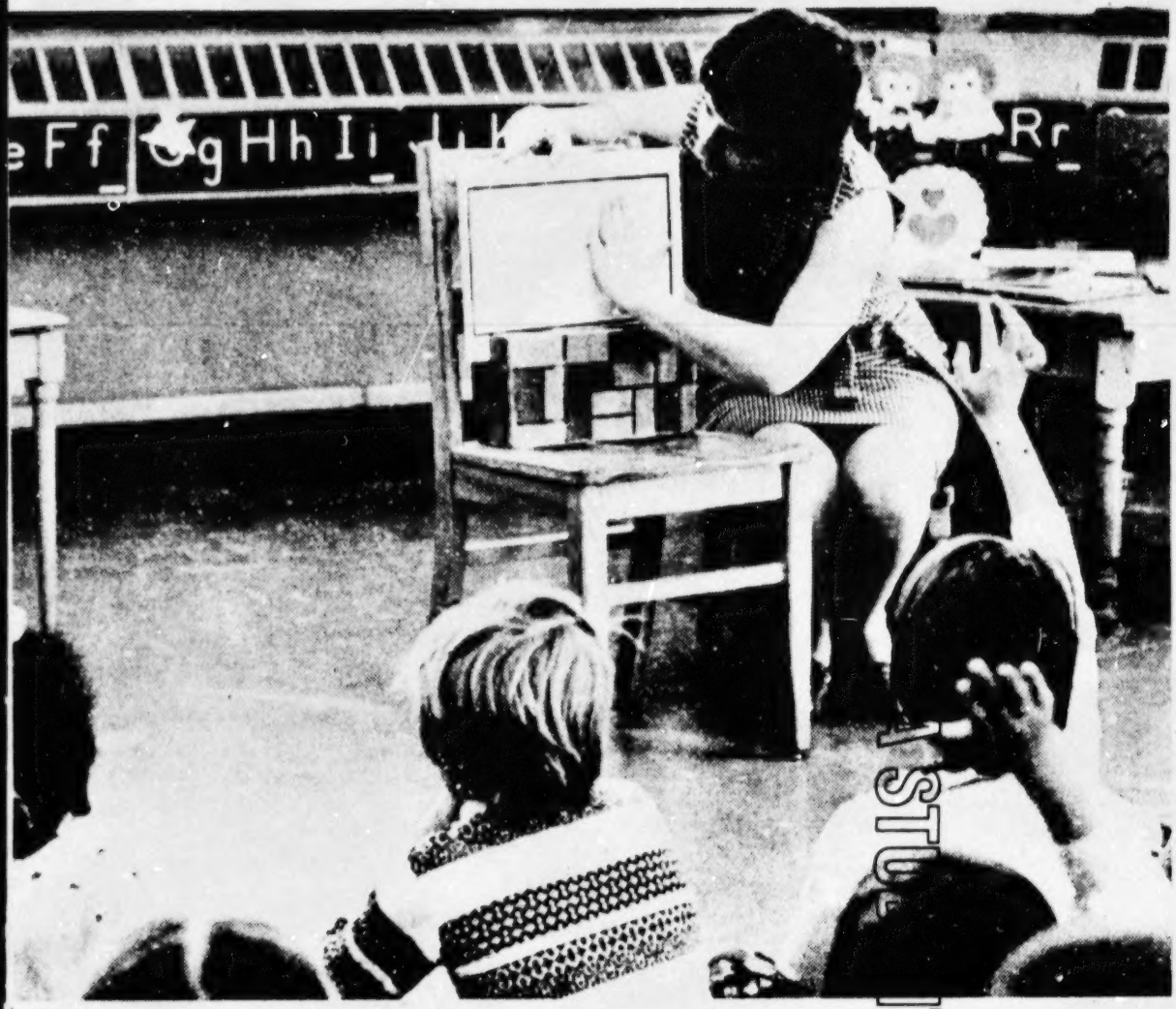
A second, more advanced level of the **SEE** instructional program was designed for introduction and field testing to the first grade pilot groups. Concurrently the **Level I** program was introduced district wide in twenty-four kindergarten classes divided into twelve experimental and twelve control groups totaling approximately 280 children in each category. This group was further enlarged through adoptions by out-of-district and non-public schools where teachers had heard of and requested the **SEE** program.

YEAR TWO

By the end of our second year of development we were to have an approximate student population of 5,000 children in 33 school districts in and outside of New Jersey. This unanticipated growth of the program brought us to the point where it could no longer be maintained by its one-man staff and the teacher of the original pilot experimental kindergarten classes was given the full time assignment of working with **Project SEE.**

The physical expansion of **SEE** was more than matched by its conceptual growth. Though we continued to center our efforts in the area of visual orientation, our involvement in the **totality of learning** made it clear to us that we must be **multi-sensory - for the totality of learning involved the totality of the individual.** The requisite articulation, by the children, of the structured visual stimuli which we offered them generated unusual vocabulary growth and communication skills and affected their auditory response. The exercises in graphic replication did much to affect eye-hand coordination and manipulative control and the attitudes generated by the program as a whole resulted in an independence of thought and action.

A highlight of our two-year existence came with the recognition of **SEE**, by the **Office of Program Development, New Jersey Department of Education,** as being **exemplary** and **innovative**. Similar recognition of **innovativeness,** being **cost effective, exportable** and **exemplary** was accorded **SEE** by the **President's National Advisory Council for Title III** and the **United States Office of Education.** As a result of this recognition the program was made available to other districts.



STUDENT IS...

The student is the center of the activity of learning. While it is the teacher who teaches it is the student who shoulders the onus of learning. It is the student who must internalize experiences and relate what has been discovered to the teacher. It is the student who must analyze the data and elicit from it the meaning of the experience. It will be the student who must differentiate the data, make the comparisons and the analogies. It is the teacher who offers the materials for investigation but it must be the student who investigates, defines and articulates that which is learned.

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YEAR THREE

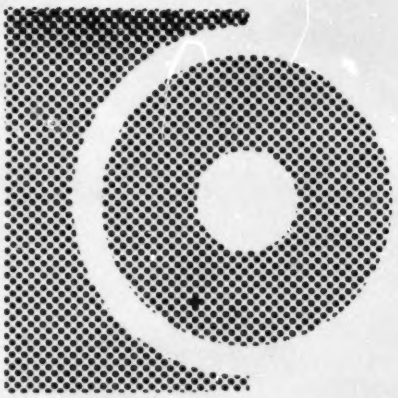
It was becoming increasingly evident that **SEE** was meeting a recognized need. The requests for the program were now coming in from a national audience as well as from the state and, by the end of our third year **SEE** was in use in over ninety New Jersey districts and in twenty-three different out-of-state districts from California to Massachusetts and from Minnesota to Florida. The staff had been expanded to two full-time personnel as well as the part-time director/originator. A third level of **SEE** was designed for introduction to our pilot groups which were now on the second grade level. Concurrently the **Level II** program was expanded from its original pilot status to a full blown experimental/control program in the Union Township district and was offered to the out-of-district and non-public participants in our **Level I** program. The **Level I** program had now become an accepted entity and was no longer treated as an experimental program.

In addition, responding to numerous requests from remediation specialists, we developed a tactile version of the **SEE** visuals. This instructional kit, labeled **'TACTUALS,'** offered **three-dimensional** counterparts of the **Level I** program. Since it was not our intent to structure the **SEE** program as a remedial program we have made no effort, to date, to field test the **TACTUALS** and hence there is no definitive data as to their effectiveness.

From the inception of the **SEE** program, three years ago, we had no insight as to when the goals of the program would come to fruition. The analysis of our test results and the evaluation of the program, as a whole, indicates that what we were looking to achieve has, in fact, been achieved and that continued investigation into training for learning will probably not be necessary at this time.

The **SEE** experience has been an exciting one. The wide acceptance of **SEE** by the classroom teacher, the very positive response of the children who have worked with it and the state and national recognition we have received have been gratifying and have given us the satisfaction of contributing to the improvement of education. Of even greater significance, perhaps, is that in working in a heretofore unexplored area we, as teachers, have gained insight and understanding in the most fundamental of educational experiences - **learning.**

PROJECT SEE IS...



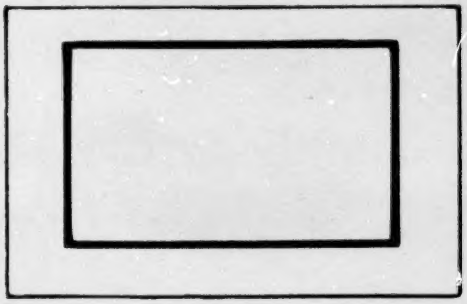
We have found that awareness is not inherent - that children can be trained to be more sensorially sensitive, and, that this sensitivity can be structured into a methodology for the processing of experience. We have found that children possess capabilities of analysis and cognitive action far exceeding that which they have been assumed to have and that these can be utilized to broaden the scope of their educational experience.

A program for the development of visual perception must, most logically, be approached visually. So **Project SEE** centered its instruction around a sequenced set of visual experiences to be **analyzed** and **exposited by the children**, then **related to** and **replicated**. The visuals in **Level I**, forty (40) in number, started with the most elementary (a) single line element and progressed with increasing difficulty to (b) two non-interacting lines, (c) two lines which interact, (d) elements made up of three components, (e) simple shapes, (f) shape / line combinations and (g) shape / shape combinations. These were placed in a frame of reference so that the children would see them as being a part of a greater totality (**gestalt**). (see Appendix: Chart 1)

Our goal of **internalizing the learning** dictated our basic methodology - the **teacher could not tell the children what they were to learn - the children must tell the teacher what they had learned!** This placed the onus of learning on the children and made the teacher a provider of experience and a director of its exposition.

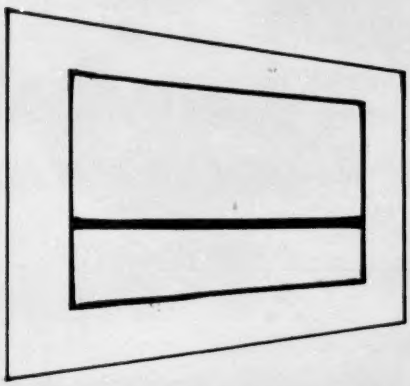
We assumed no prior knowledge on the part of the children even though it was existant in varying degrees. We wanted to structure the pattern of learning so we had to also structure the experiences of the children leading to such learning.

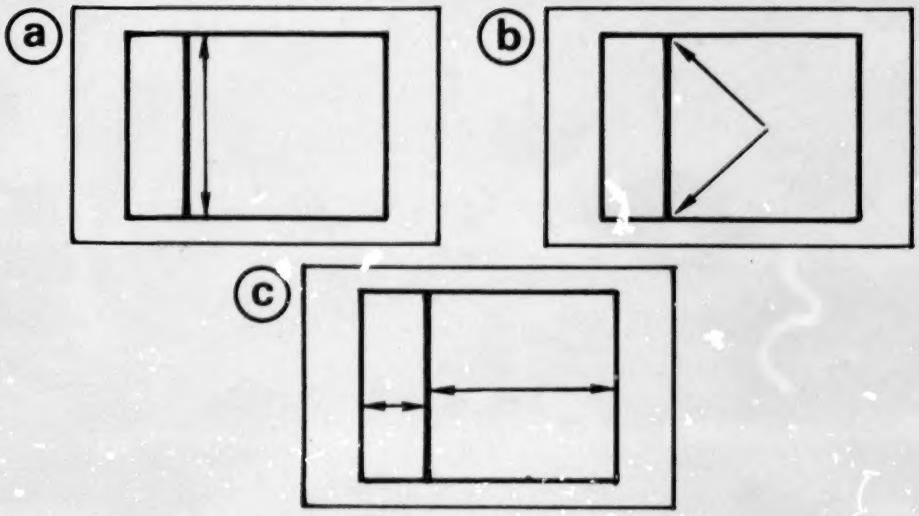
Our input to the children's experience banks was the frame which defined the space in which the elements were placed. This we gave to the children



as a starting point but all other vocabulary was to be generated by the children themselves.

The children were seated in front of the visual card which was placed on an easel or other suitable stand. Care was taken to place the children in such a way as to avoid peripheral viewing since the ensuant distortion would offer an essentially different image.

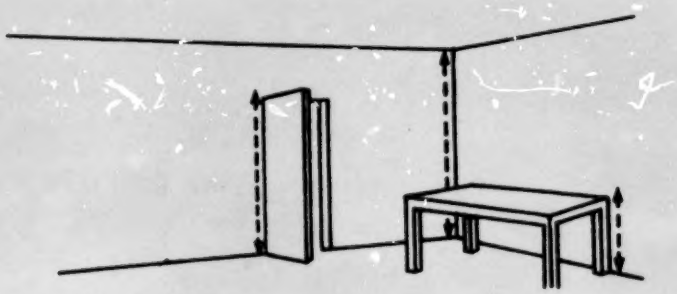




The children were directed to **look carefully at the card** and to **describe what they saw**. They were to tell all they could about the (a) element (printed in orange), (b) its relationship to the frame (printed in black), and (c) its relative position in the space defined by the frame. **The exposition of the visuals was the children's activity! It was the child who had to clearly describe what was seen. It was the child who had to generate the necessary vocabulary. It was the teacher who had to elicit this information from the child.** A straight horizontal line might have been described as one which, 'goes from the door to the window' or 'across' or the child may even have approached the card, traced his finger along the line and said, 'it goes this way.' **Any descriptions sufficed as long as they correctly described the element.** At the outset we recognized the minimal vocabulary of the children and we **accepted** even the most **'creative'** and **'original'** descriptions as long as they accurately described the visual. In time, however, **the children came to recognize the need for some standardization of vocabulary** and this was either generated from within the group or elicited, as one of a number of **possible** answers, from the teacher. **At no time, during any phase of the program, were the children told they were wrong. However, at no time was an incorrect answer accepted. The children were to be brought to the realization of their own errors and, further, they were to be prepared to make the determination as to how they could be corrected!**

The expositive phase of the lesson continued only long enough for the visual to be fully described. **It was not necessary for every child to recite** since the program was to be given at least three times a week and in that time every child would have the opportunity to respond. Further, if every child were given the opportunity to recite on any given day it would have prolonged the lesson to the point of possibly palling on the children.

In the second phase of the daily lesson the children were directed to **carefully search around the room and locate objects which contained the element in the visual under discussion.** A straight vertical line might have been seen as the corner of the room, the leg of a chair or table, the side of a window.



It was important that at all times the element and its 'real' counterpart be seen in the same orientation. If the element were truly vertical then its counterpart must also have been seen as being vertical. If the visual under inspection was too complex as to afford easy application it might have been treated in terms of its component parts or the children might have constructed facsimiles from objects found around the room. **We were looking, here, for the concept of application and out-of-context adaptation of the learning** and we were willing to accept even the most creative and original interpretations of the children. Once again, we did not prolong the activity and after several children responded we progressed to the third and final phase of the daily lesson.

The visual card was placed face down and the children were given **work**

sheets which had been pre-printed with a frame, smaller than, but in proportion to, the frame on the visual. They were given soft-lead primary pencils but no erasers. We wanted to engender a positive attitude toward error and the recognition and acceptance that error is part of the learning process and not something to be ashamed of. Children have a right to be wrong! Any errors that did occur were to simply be crossed out and redrawn. This also served to indicate to the teacher that the children were indeed realizing their errors and correcting them.

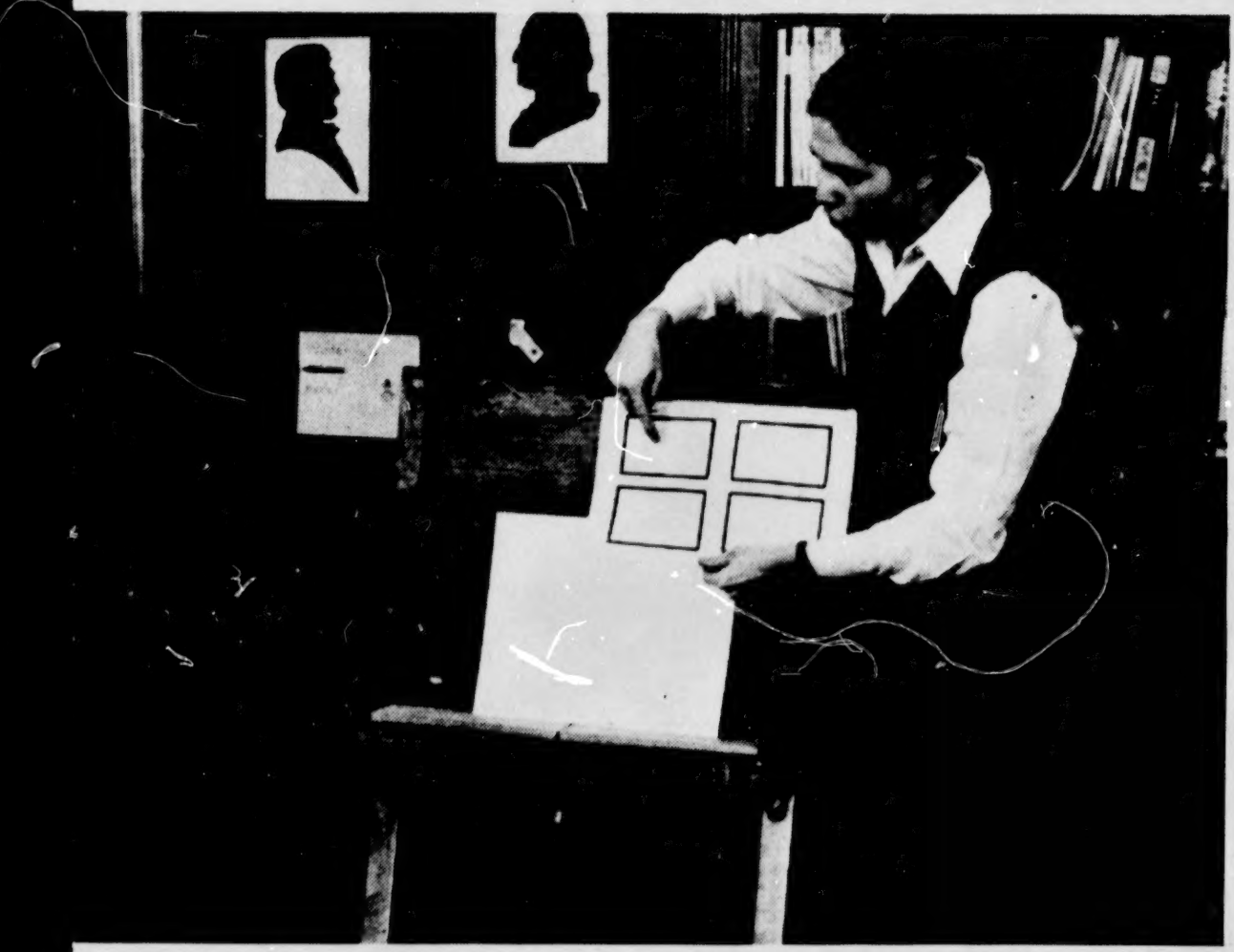
When all the children were ready to work the visual card was turned around and placed so that all children had a direct, unimpaired view of it. The direction was given to look carefully at the card and to draw what was seen.

We always offered a model from which to work since we were looking to develop visual trust and reliability rather than a memory response. As the children worked the teacher would go from child to child asking those who had made obvious errors to check their work by looking again and comparing what they had done with the visual on display. A child might even place his work next to the visual for a more accurate comparison. The replication is merely a reenforcement of the act of perception therefore it is not imperative that every child successfully complete each visual. It is the totality of the process which is important! However, if at least half the class did not successfully replicate the visual a critique lesson would be held on the following day. At that time the children's papers would be critically compared with the visual. The children would make the determination as to whether or not the individual replication was successful and if not what corrections would be needed. On the following day that same element would be introduced for a second time and again be replicated. No matter what the response of the children this visual would not be repeated again as a daily lesson.

On the completion of a series of any four visuals a review lesson would be given. Review work sheets imprinted with four frames, proportional to but smaller than that on the visual, would be given to the children. The four previously completed visuals would be shown again, one at a time, and replicated in the frame indicated by the teacher. The review lesson marked the final use of these particular frames.

The SEE program is designed as a totality and is seeking to establish a process rather than produce a product. It has been designed to be given to an entire class at the same time. Should a child miss a lesson or not successfully replicate a visual he is to continue on with the class.

The Level II program follows the same format as that followed in Level I. The set of forty visuals starts with the last ten visuals of the Level I kit. These are followed by experiences of (a) shape within shape, (b) shape overlapping shape (at which point we introduce the variation of solid and outlined elements) and (c) shapes juxtaposed so as to give the illusion of the third dimension. (see Appendix: Chart 2)



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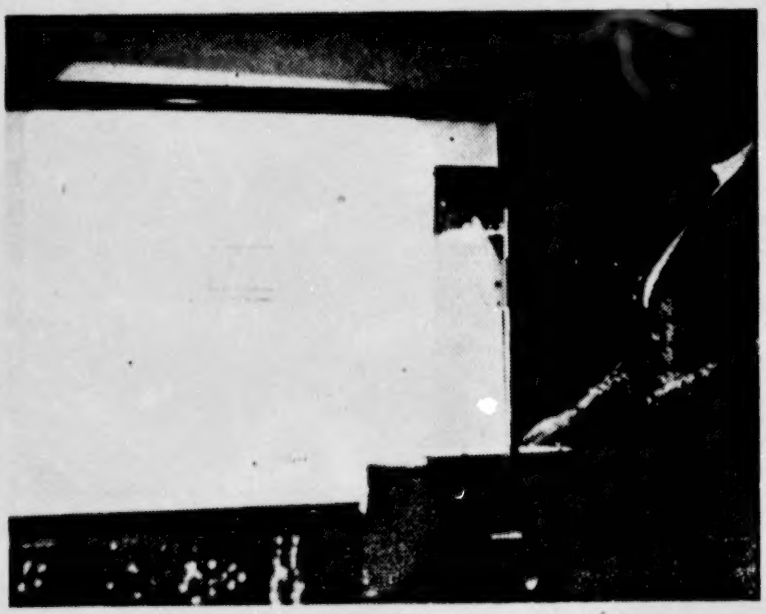
The **Level II** program also contains a series of twelve photographs of simple blocks. These may be introduced toward the latter part of the year and are treated as are the regular visuals. The elements are to be analyzed as to shape, line, direction, proportion, texture, etc. and then replicated.
(see Appendix: Chart 3)

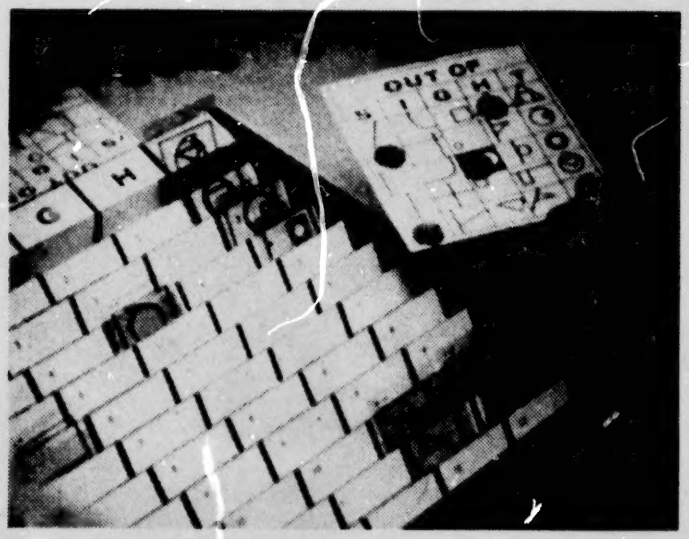
OUT OF SIGHT

As a change of pace activity we have designed the **OUT OF SIGHT** game. This is, as is the entire **SEE** program, a total class involvement. Played like

bingo, each child is given a game card on which is imprinted elements similar to those used for the instructional visuals. These are placed in columns under the letters S, I, G, H and T. The teacher is supplied with a set of overhead transparancies corresponding to the elements on the cards and letter



coded for identification. She projects these calling out the particular letter under which the element could be found. Those children having cards with that element cover it with discs supplied with the game and the first child to complete the assigned game task calls, 'Out of Sight!' The card can then easily be checked against the transparancies which have been called. Additional learning experiences may be introduced by designing game tasks of letter forms such as the O, S, M, N, etc. Since **Out of Sight** is a learning experience it may, at times, be offered in lieu of the regular daily lesson.



TACTUALS

The most recent development in the **SEE** program are our **TACTUALS** (tactile-visuals). These three-dimensional visuals, made of high impact styrene, have been produced in response to numerous requests for a version of the **SEE** program for use with children having learning disabilities. The **TACTUAL** kit consists of the first twenty-four visuals of **Level I** and a 'color-forms' type of student work sheet with which the student can construct rather than draw the replication. The **TACTUALS** have not yet been field tested and there is no definitive data available as to their effectiveness.

EVALUATION

Throughout the life of the program children, at all levels, were pre and post tested with the appropriate versions of the staff designed, **Knobler Perceptual Development Series Tests.** The **Level I** (see Appendix: Chart 4) and **Level II** (see Appendix: Chart 5) tests each consisted of thirty problems sequenced by degree of difficulty and presented in sets of ten on three consecutive days. **We place no time constraints for the completion of the test since we are interested in determining the level of perception and not the speed of recognition.** The tests have been designed for easy presentation and scoring by the regular classroom teacher. In evaluating the **SEE** program, however, all tests from our experimental and control classes were marked and evaluated by the project staff. (see Appendix: Chart 6)

Further, in recognition of the fact that testing, especially of shildren so young, might not be truly indicative of actual growth, we also surveyed the teachers of the experimental classes for their **subjective evaluations based on their educated observations and opinions of the children's responses** over the life of the program (see Appendix: Chart 7). These, we feel, give us greater insight into the totality of the program.

RESULTS

The **'A' series (pre-test)** of the **Level I Knobler Perceptual Development Test** was normed on the response of 626 children tested during the school year 1972-73 and the 100 children in the pilot classes of 1971-72.

KNOBLER PERCEPTUAL DEVELOPMENT SERIES

Norms of the Average Scores of the Level I - 'A' series

K 1 : 16.264

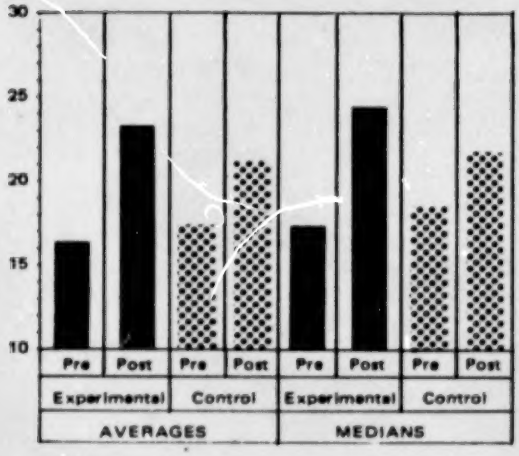
K 2 : 13.290

K 3 : 13.843

In evaluating the data derived from our testing we have made comparisons of both the averages and the medians of the:

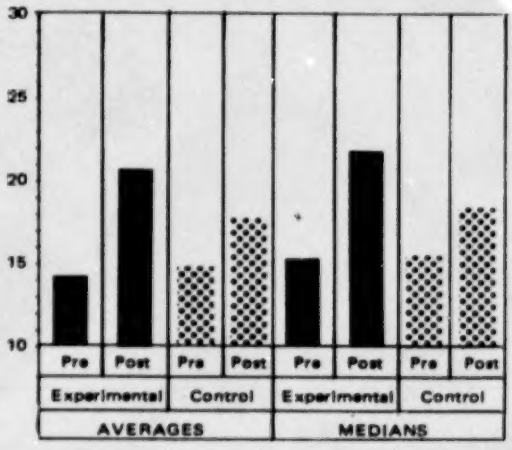
1. Pre to post tests of all experimental class children.

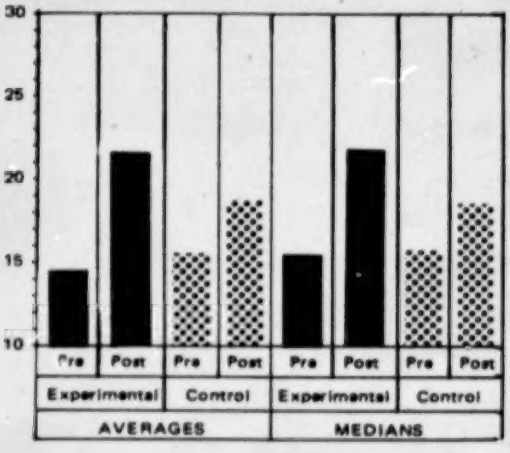
2. Pre to post tests of all control class children.



K1

K2





K3

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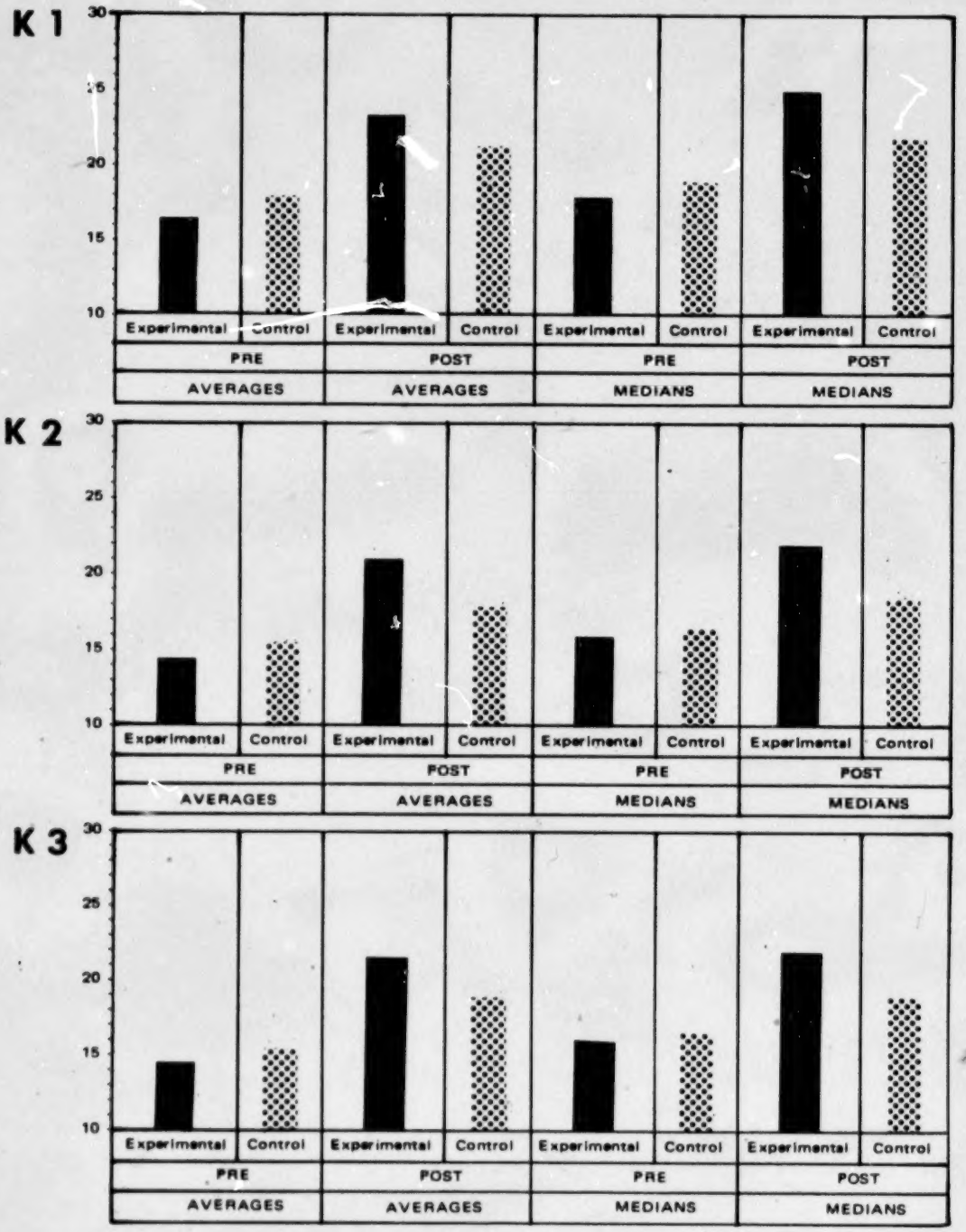
3. Pre to pre tests of all experimental and control class children.

4. Post to post tests of all experimental and control class children.



5. Growth differential of experimental and control class children.

DIFFERENTIALS - Level I / Averages

	Experimental	Control
K 1	6.756	3.588
K 2	6.242	2.914
K 3	6.905	3.377

The **'A' series(pre-test)** of the **Level II Knobler Perceptual Development Test** was normed on the response of 525 children tested during the school year 1973-74 and the 100 children of the pilot classes tested in 1972-73.

KNOBLER PERCEPTUAL DEVELOPMENT SERIES

Norms of the Average Scores of the Level II - 'A' series

K 1 : 17.966

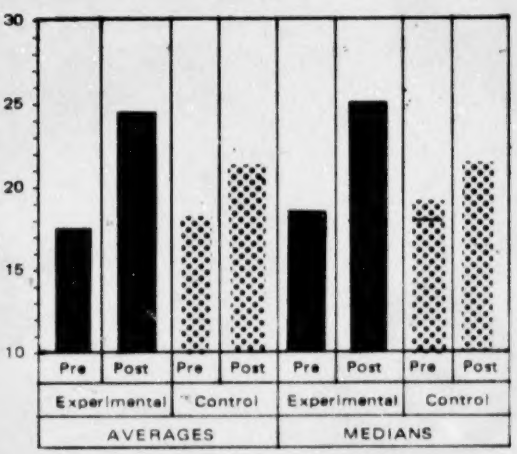
K 2 : 15.142

K 3 : 11.888

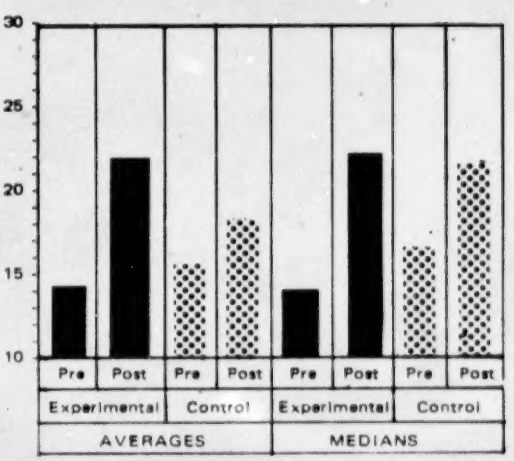
The data from the **Level II** testing was subjected to the same evaluation as was the data from the **Level I** testing.

1. Pre to post tests of all experimental class children.

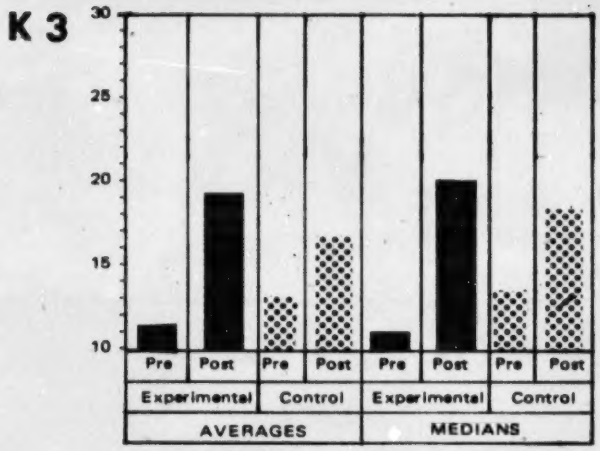
2. Pre to post tests of all control class children.



K 1

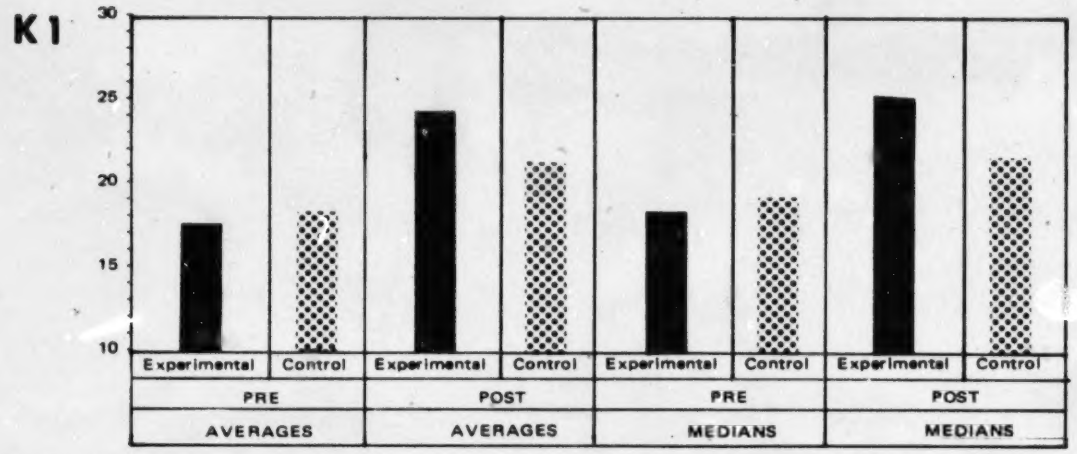


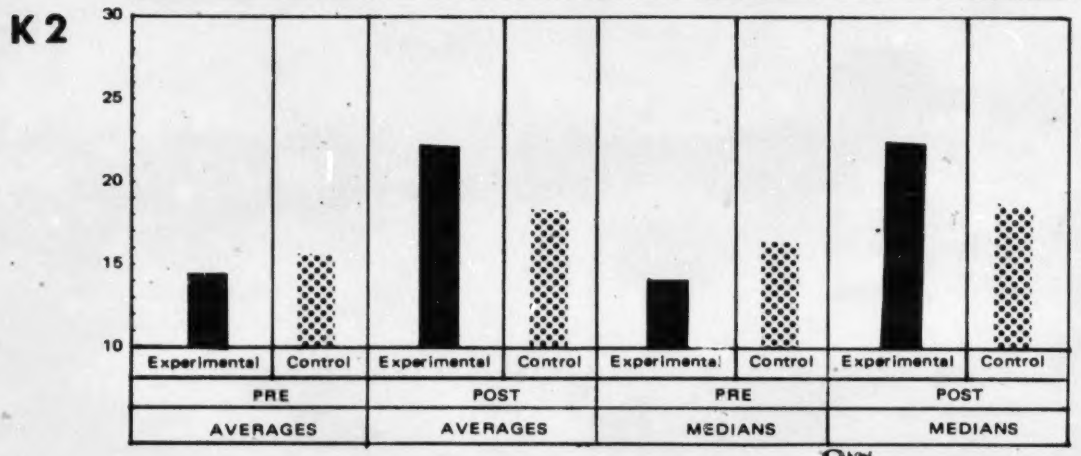
K 2

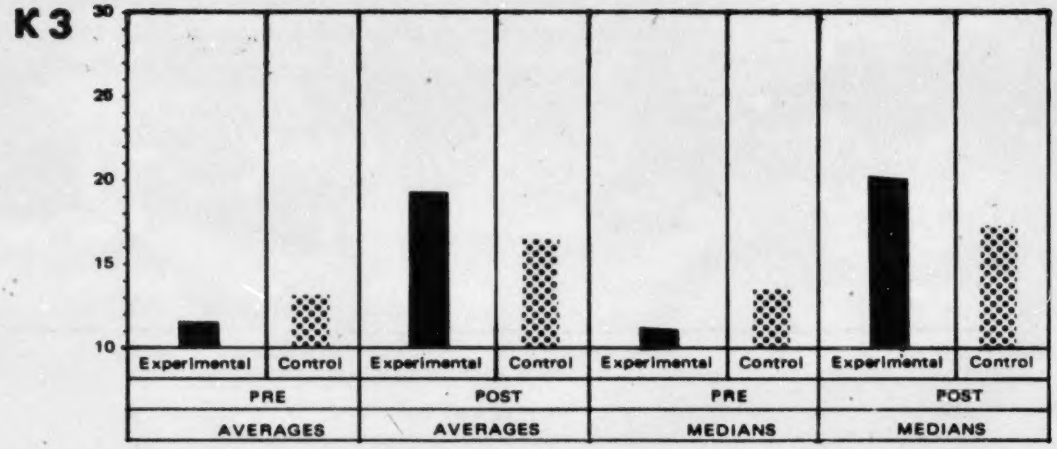


3. Pre to pre tests of experimental and control class children.

4. Post to post tests of experimental and control class children.







DIFFERENTIALS - Level II / Averages

	Experimental	Control
K 1	6.3796	2.8679
K 2	7.1528	3.0237
K 3	7.6186	3.7678

We have also isolated the results of children from varying types of communities and, where data was available, compared the results from **pre-schools, urban, suburban and rural** communities to those of the children in the **Union Township** schools.

COMPARISON OF DATA FROM VARYING TYPES OF SCHOOL POPULATIONS

	PRE-SCHOOL		URBAN		SUBURBAN		RURAL		UNION	
Test	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Level I										
K 1	17.078	19.732	13.085	17.165	17.917	24.408	18.0	26.09	16.694	23.45
K 2	12.13	16.82	11.554	16.809	15.216	24.408	14.56	22.95	14.681	20.923
K 3	12.636	16.976	11.204	18.108	15.227	22.304	13.56	23.54	14.379	21.284
Level II										
K 1			21.71	24.760	18.927	23.521			17.730	24.351
K 2			18.517	22.173	13.235	22.545			14.881	22.146
K 3			17.335	18.594	12.155	20.357			11.529	19.404

DIFFERENTIALS					
	Pre-School	Urban	Suburban	Rural	Union
Level I					
K 1	2.654	4.08	6.491	8.9	6.756
K 2	4.69	5.255	5.949	8.39	6.242
K 3	4.34	6.904	7.007	9.98	6.905
Level II					
K 1		3.05	4.594		6.621
K 2		3.565	9.31		7.265
K 3		1.259	8.202		7.875

While the test results are impressive we feel they must be suspect since they are merely indicative of the response of children at a given point in time and are specifically related to the replication activity of the program. In order to gain greater insight into the breadth of the program we asked the teachers who used the program for their opinions and observations. A thirteen point questionaire, requiring scaled evaluation and anecdotal commentary was sent to all teachers in and out of district and state who were involved in the program. Responses were received from teachers in rural, suburban and urban communities, from pre-schools and parochial schools and from as far away as California. Over 90% of the respondants were favorably inclined toward the program. Their comments to the anecdotal questions, we feel, give ample justification for **Project SEE**.

In response to: **Carry over into other curriculum areas. . .**

... do left to right orientation, fewer reversals.

... increased visual acuity.

... in math, shapes and angles, eye / hand coordination in writing, more precise in drawing.

... children explain how to print letters of alphabet by using the terms slanted, curved, etc.

... their freedom to explain what they see carries over into all class discussions and they have no fear in saying what they feel.

... help in language arts, verbalizing, comparing with known objects.

... work books, weekly readers, geometric shapes, general number work.

... exceptional growth in art work, increased awareness of shapes in the environment.

... **Project SEE** definitely aided our math program. The vocabulary became an important tool in math. Since motor control was developed to a finer degree with **Project SEE** there was remarkable carry over in art and printing.

... my class was very poor in following instructions in any subject, there was improvement here, they performed well and were very attentive.

... I believe youngsters have an innate ability for keeness. They are not complicated so they tend to see in a way that is unique, and very different from the way that an adult would view things. This ability has never really had room to grow as far as the curriculum is concerned; but this program uses that ability for perception to be brought to its potential.

In response to: **Children's reactions . . .**

... enjoyed discussing, reproducing and locating objects which contained the elements.

... children became very serious when trying to reproduce the visuals.

... children receptive to the program, enjoyed duplicating the figures, adept at identifying concrete objects that resemble the figures.

... **'Out of Sight'** became one of their favorite activities.

... children gained confidence in talking before a group. Children show a desire to perform and are pleased when result is praised, and express an interest to continue.

... if the frame is not presented by a certain time of the day, many children will question me as to when we are going to use it.

In response to: **Teacher's reactions . . .**

... I think it really sharpened the awareness of the children. They were able to make more delineated criticisms. I plan to use **SEE** before we go into math workbooks. Helps to increase attention span. Improves ability to take directions.

... this is my first experience in working with **Project SEE**. I enjoyed it because I was able to see the children improve greatly in all areas almost every day.

... great possibilities for locating problems, creates group participation. A good way to start the day enthusiastically.

... I was delighted to find such an inexpensive program in training visual perception.

... the teacher becomes more skillful in drawing information from students. I am learning how to phrase questions properly.

... it helps in getting hyperactive children to listen and follow directions.

... I am presenting the program to other ... kindergarten teachers. After two years of testing, I am recommending adoption throughout the system.

... the children gain much self-confidence, along with respect for their peers, and acceptance of different explanations.

... **Project SEE** enabled the children to concentrate for longer periods of time with other curricular activities such as the reading program, and verbalization. We were able to cover more material per session, because of increased attention span, response to given directions improved immensly. Children began using vocabulary developed in **Project SEE** to describe personal experiences.

FINDINGS

Each new evaluation of **SEE** has brought to light an outgrowth of the program we had not previously anticipated. At our inception, three years ago, our expectations were minimal. Not knowing what children could do we could, in no way, predict what they should be able to do. In fact, at each stage of development we were told that the children could not do what we had structured and, at each stage the children, not only accomplished what we had planned but actually went beyond.

Our approach was totally open. We would be thankful for whatever we could achieve over and beyond that which the literature said children would normally achieve. We trained for heightened visual response and this we achieved. We found, also, that the format of the program generated atypical vocabulary growth and auditory response, improved eye / hand coordination and motor control, heightened descriptive powers and self-assuredness.

SEE was designed for introduction at the kindergarten level yet it is being used from pre-school up to and including the eighth grade.

SEE has not been designed as a pre-reading program and no attempt has been made to relate to reading ability yet **SEE** is being used in right-to-read programs and by reading and remedial reading specialists.

SEE was not designed as a remedial program and has not been field tested in this area yet it is being used with all types of impaired children.

SEE is not an art program yet the generation of heightened awareness significantly affects pictorial and creative responses of children.

SEE is not a language arts program yet it significantly enriches the child's vocabulary, makes him more articulate and descriptive and enhances his skills of communication.

SEE focuses on visual activity but significantly affects all the senses.

The elements of **SEE** are not new but the totality of **SEE** is unique. **SEE** embodies the pragmatism of John Dewey and the sensory awareness of Rudolph Arnheim. It recognizes that it is the **internalization of primary experience which leads to the most significant learning.** That internalization is the result of the sensate interaction of the learner with the experience and the ensuant processing of its inherent data in light of the learner's prior experience. **It recognizes that a child must be allowed to learn. That what is most important is not what a teacher teaches but what the child learns. The child must be at the center of the learning experience...SEE puts him there!**

SEE AS A DEMONSTRATION SITE

As a result of the 1973 national validation of **SEE** by the standards and guidelines of the **United States Office of Education** and consistant with the purposes of the **Elementary and Secondary Education Act, Title III,** the program is now funded as a demonstration site. Interested persons may contact the **SEE** staff at the **Union Township Board of Education** to arrange for on-site visitation. The staff is also available for orientation presentations to potential consumers and provides teacher training to those districts adopting the program on either a district-wide or individual school basis.

Project produced instruction kits, consisting of:

- a set of 40 instructional visuals
- teacher's guide
- pre-printed spirit masters for the **Knobler Perceptual Development** tests
- mimeograph stencils for the daily and review work sheets
- the **Out of Sight** perception game

are available, at cost, from the producer district. **Level I** and **Level II** kits contain the same materials with the exception of the instructional visuals and the teacher's guides. The **TACTUAL** kit, which we see as being suplimentary contains only tactile versions of the first 24 **Level I** visuals, 6 student work cards and the teacher's guide.

In addition to the aforementioned materials and services the participants will receive the project newsletter **'SEE / SAW'** and be eligible for consultation services by the project staff. In return we ask that participating districts supply us with all data and that participating teachers be willing to respond to an evaluation questionaire on the impact of the program. There is no charge for the program other than the non-profit cost of the instruction kit. All services and dissemination materials are funded by the **New Jersey ESEA, Title III dissemination program.** The cost of installing the **SEE** program is limited to the instruction materials. The program calls for no special staff, facilities or equipment. It is, for all intents and purpose, non-expendable. The spirit masters and mimeograph stencils will easily reproduce three year's supply of materials.

The Union Township Public Schools, through the ESEA, Title III Project SEE, and with the authorization of the New Jersey State Department of Education, Office of Program Development, offer, to interested educators, the training, services and materials requisite to the replication of the SEE program.

Producer School District

As representatives of the **Producer School District** the **Project SEE** staff will provide the following services and materials to a **Consumer School District** desiring to commit itself to the replication of the **SEE** program:

1. Provide orientation and descriptive materials on **Project SEE.**
2. Provide instructional kits consisting of:

Level I:

A set of 40, Level I instructional visuals
Teacher's guide for the Level I program
Spirit masters for the production of the pre and post-test versions of the **Knobler Perceptual Development Series- Level I**
Mimeograph stencils for the production of the daily and review work sheets
The **Out of Sight** perception game

Level II:

A set of 40, Level II instructional visuals
Teacher's guide for the Level II program
Spirit masters for the production of the pre and post-test versions of the **Knobler Perceptual Development Series - Level II**
Mimeograph stencils for the production of the daily and review work sheets
The **Out of Sight** perception game

TACTUALS:

A set of 24 tactile instructional cards
Teacher's guide
A set of 6 student work cards

3. These materials will be offered at the non-profit cost of production.

4. Loan or make available for purchase a film strip / tape for the training of teachers not able to be trained by the **SEE** staff.
5. Provide a 2½ hour training workshop to be conducted at the site of the **Consumer District** (for groups of 10 or more persons), or at a central location for a consolidated group of two or more districts, or at the site of the **Producer District**. Though this workshop is for the primary purpose of teacher training it is suggested that it be attended by related administrative personnel and by non-involved instructional staff.

   The workshop will cover:

   A. The rationale and philosophy of **Project SEE**
   B. Instruction in the presentation and grading of the **Knobler Perceptual Development Series tests**
   C. Orientation to the totality of, and instruction in, the methodology of the program
6. Provide all reasonable consultant services to the **Consumer District** including, but not limited to, visitations to the **Consumer District** for on-site observation and evaluation.
7. Provide the periodic newsletter, **'SEE / SAW'** to all participants in the program.

Consumer School District

A school district, having purchased the **SEE** program, may avail itself of the aforementioned services of the **Producer District** through a commitment to replicate the **SEE** program with the understanding that:

1. It follows the general format as delineated in the teacher's guide allowing for variations which stem from the uniqueness of the teacher and the student population.
2. The program is to be offered a minimum of three times per week.
3. The participating teachers will undergo training by the **SEE** staff, an authorized representative of the **SEE** staff or through the slide / tape presentation designed for this purpose.
4. All test data will be remitted to the **Producer District.**
5. Participating teachers will respond to a subjective questionaire relating to the impact of the program.
6. There be, if requested, an on-site observation of the program, by a member(s) of the **SEE** staff to assure correct replication of the program.

Director, Project SEE

Representative of the Consumer District

Date

Chart 1: LEVEL I VISUALS

Chart 2: LEVEL II VISUALS

Chart 3: LEVEL II PHOTOGRAPHS

Chart 4: KNOBLER PERCEPTUAL DEVELOPMENT SERIES TESTS - LEVEL I

Chart 5: KNOBLER PERCEPTUAL DEVELOPMENT SERIES TESTS - LEVEL II

Chart 6: TEACHER'S SUBJECTIVE EVALUATION

Chart 7: MAP TO THE UNION SCHOOL DISTRICT

APPENDIX

LEVEL I

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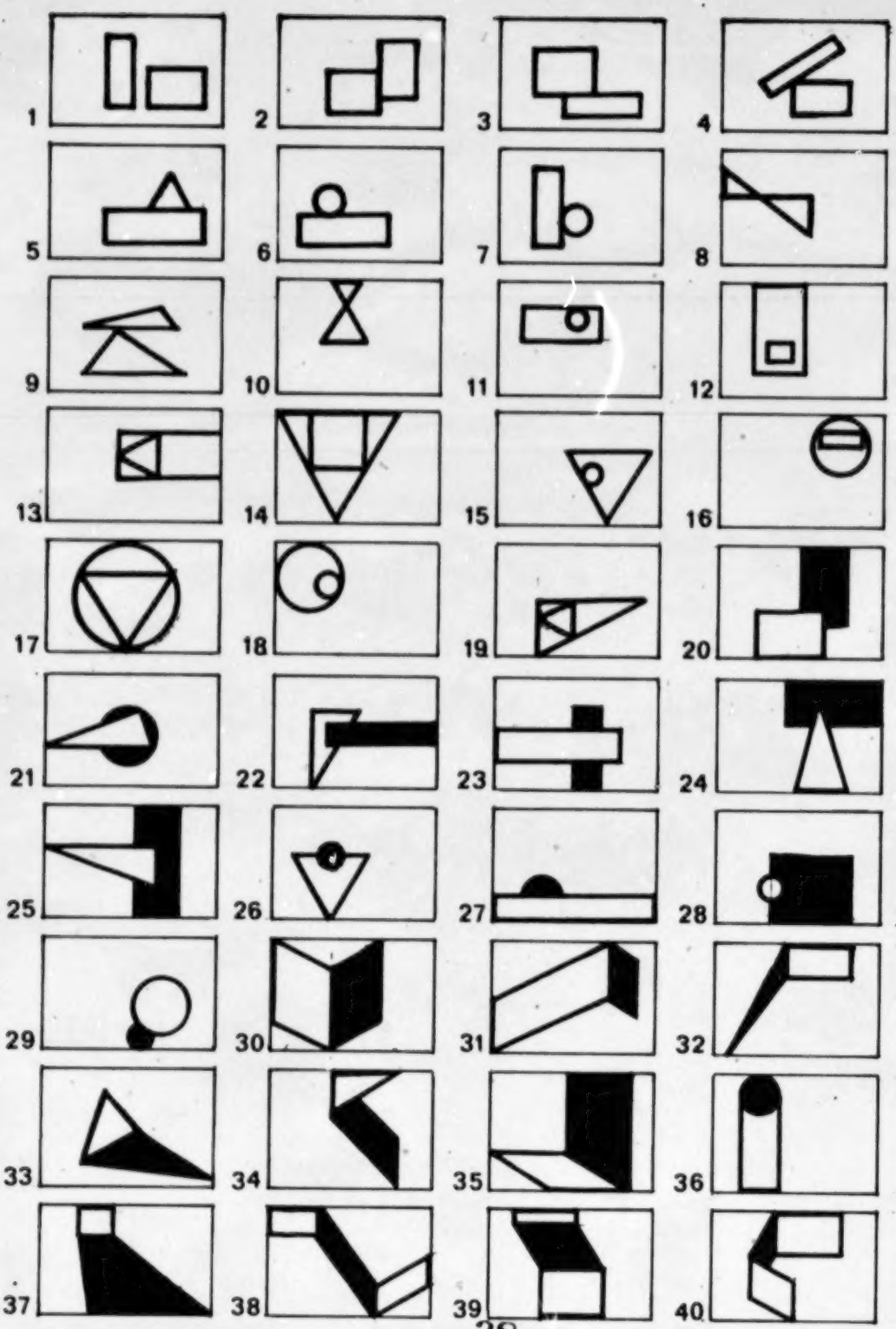
LEVEL II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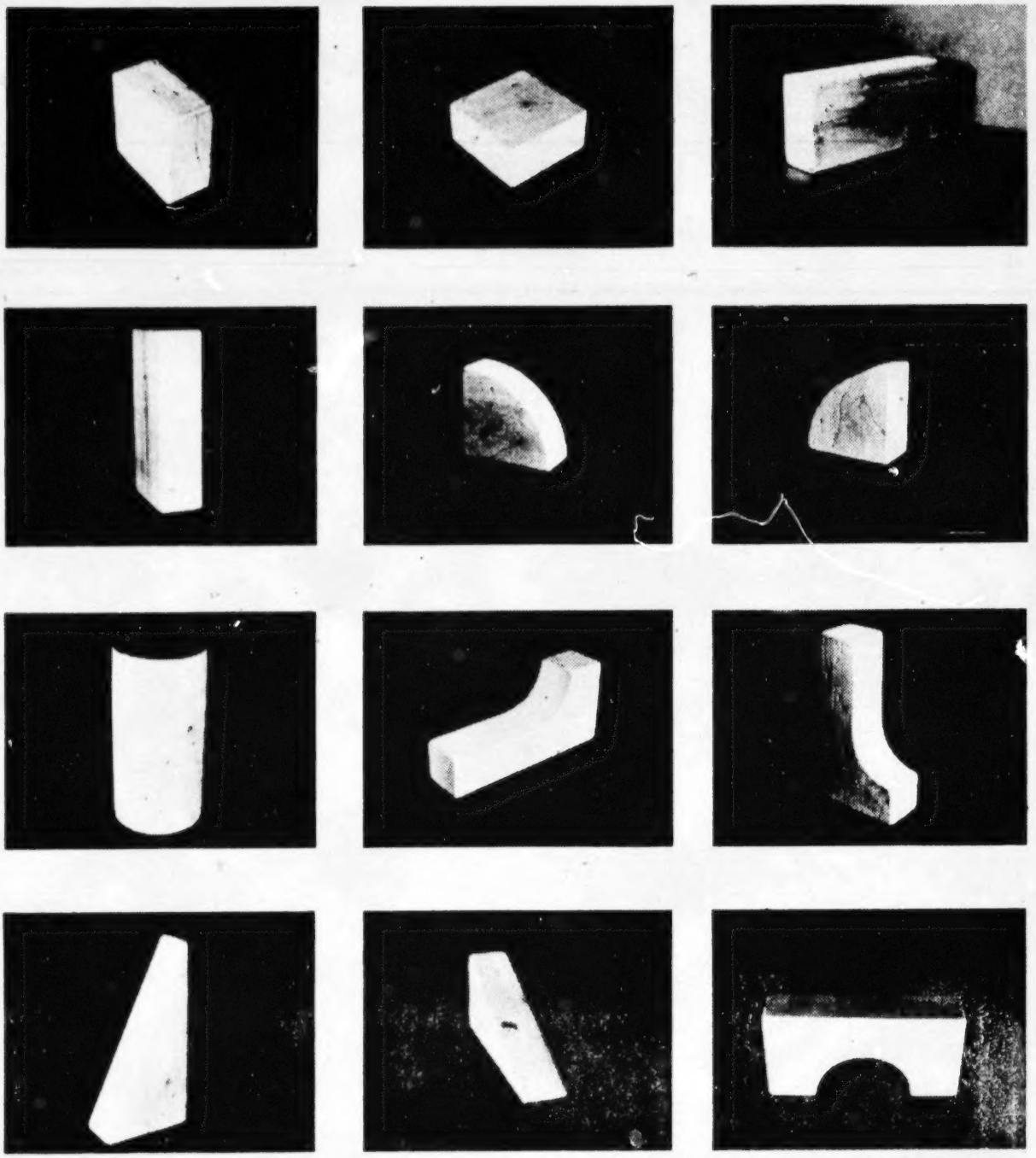
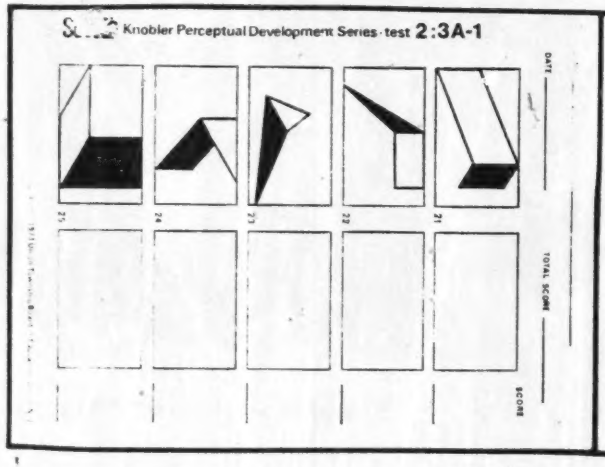
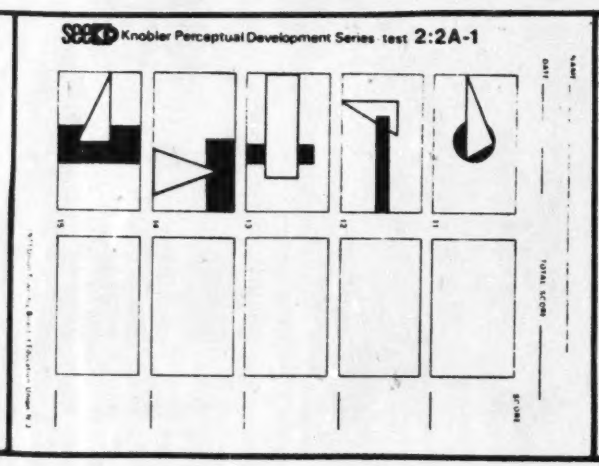
LEVEL II PHOTOGRAPHS

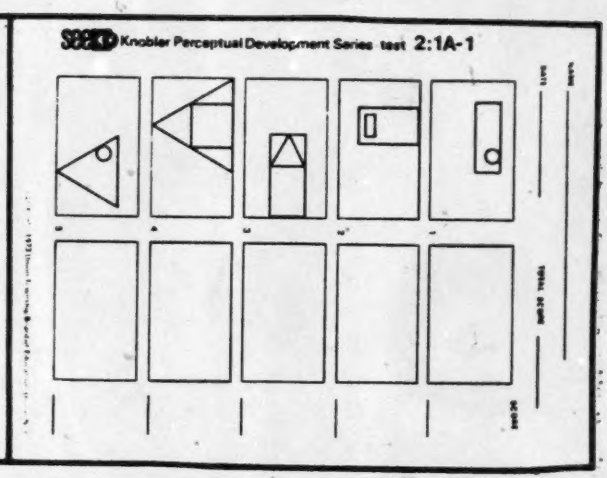


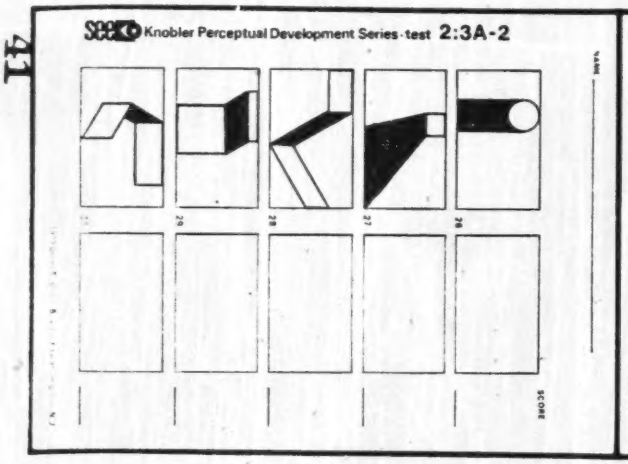
PRE-TEST- LEVEL I

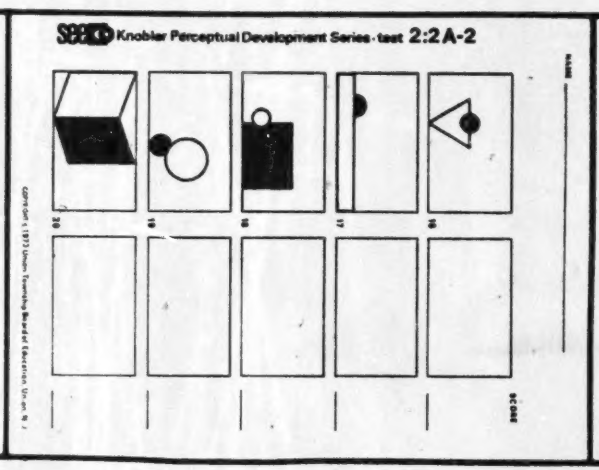
PRE-TEST - LEVEL II

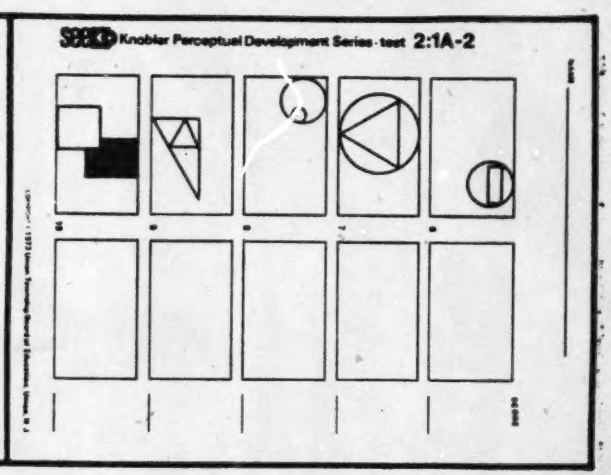












We are asking all participating teachers in **PROJECT SEE** to fill out a brief questionnaire which will become an important part of our data.

As we have previously stated, we feel that the teacher's subjective evaluation can be more significant than any test scores. We would like, therefore, to ask what changes, if any, you have seen in childrens' responses that you might attribute to their involvement in the **SEE** program. Using a scale from 1 to 5 please indicate the degree of growth you have noticed in the following areas:

1. **Increased attention span**

1	2	3	4	5
NO GROWTH	LITTLE GROWTH	AVERAGE GROWTH	ABOVE AVERAGE GROWTH	EXCEPTIONAL GROWTH

2. **Improved response to given directions**

1	2	3	4	5
NO GROWTH	LITTLE GROWTH	AVERAGE GROWTH	ABOVE AVERAGE GROWTH	EXCEPTIONAL GROWTH

3. **Improved visual awareness**

1	2	3	4	5
NO GROWTH	LITTLE GROWTH	AVERAGE GROWTH	ABOVE AVERAGE GROWTH	EXCEPTIONAL GROWTH

4. **Improved visual conceptualization**

1	2	3	4	5
NO GROWTH	LITTLE GROWTH	AVERAGE GROWTH	ABOVE AVERAGE GROWTH	EXCEPTIONAL GROWTH

5. **Ability to see objects in context (Gestalt understanding)**

1	2	3	4	5
NO GROWTH	LITTLE GROWTH	AVERAGE GROWTH	ABOVE AVERAGE GROWTH	EXCEPTIONAL GROWTH

6. **Better motor control**

1	2	3	4	5
NO GROWTH	LITTLE GROWTH	AVERAGE GROWTH	ABOVE AVERAGE GROWTH	EXCEPTIONAL GROWTH

7. **Ability to replicate visuals**

1	2	3	4	5
NO GROWTH	LITTLE GROWTH	AVERAGE GROWTH	ABOVE AVERAGE GROWTH	EXCEPTIONAL GROWTH

8. Increase in ability to verbalize and describe

1	2	3	4	5
NO GROWTH	LITTLE GROWTH	AVERAGE GROWTH	ABOVE AVERAGE GROWTH	EXCEPTIONAL GROWTH

9. Increase in use of vocabulary

1	2	3	4	5
NO GROWTH	LITTLE GROWTH	AVERAGE GROWTH	ABOVE AVERAGE GROWTH	EXCEPTIONAL GROWTH

10. Improvement in self-discipline

1	2	3	4	5
NO GROWTH	LITTLE GROWTH	AVERAGE GROWTH	ABOVE AVERAGE GROWTH	EXCEPTIONAL GROWTH

11. Improvement in self-direction

1	2	3	4	5
NO GROWTH	LITTLE GROWTH	AVERAGE GROWTH	ABOVE AVERAGE GROWTH	EXCEPTIONAL GROWTH

12. Carryover into other curriculum areas. Please specify:

13. Pin-point perceptual or visual impairment and referral for examination: YES____ NO____

14. Children's reaction to the SEE program:

15. Teachers' reactions to the SEE program (general and specific if possible):

Name_____ Date _____

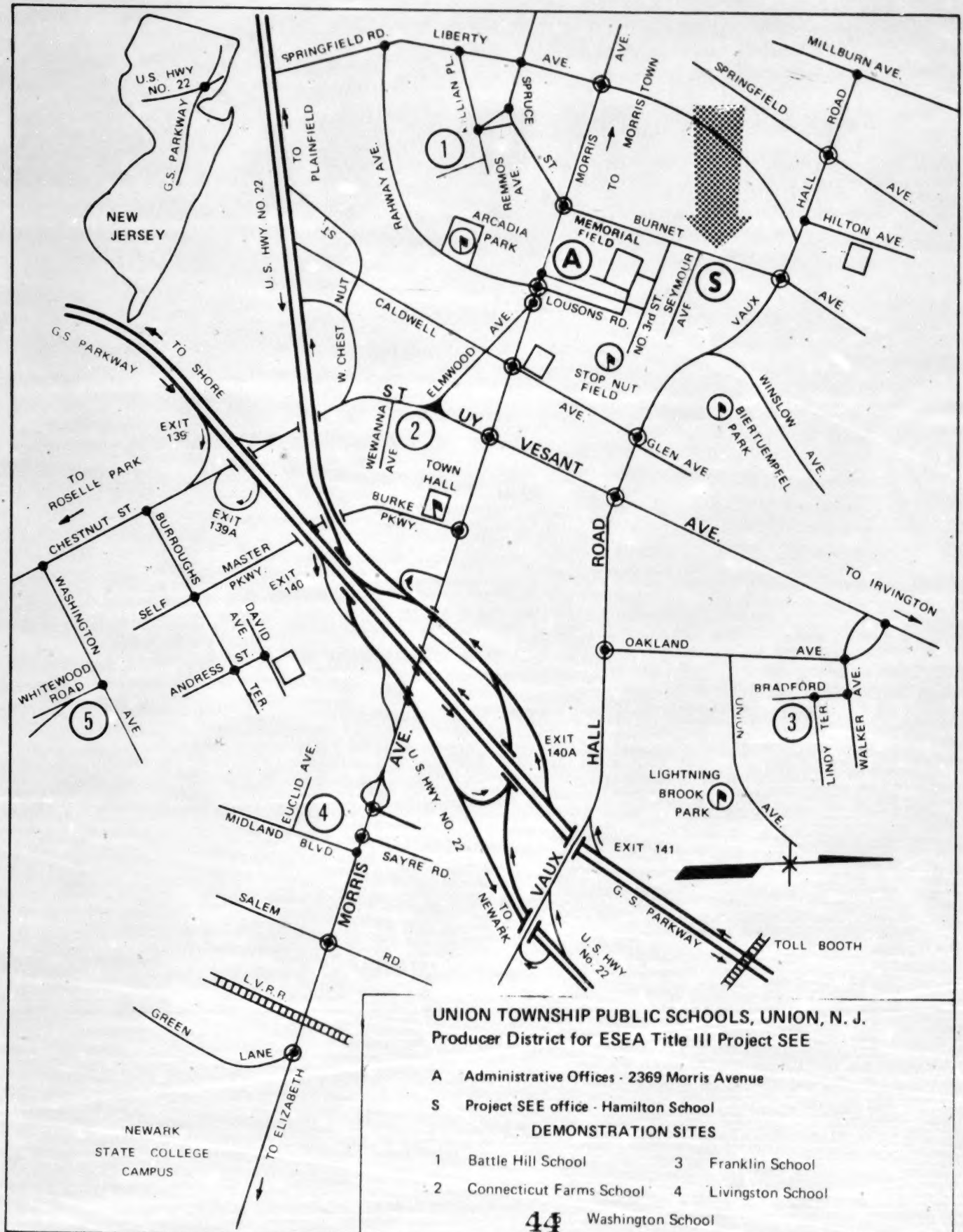
School_____ School District _____

Grade _____ Number of Students _____ Kit: Level I ____ Level II ____

Type of Program: Regular ____ Remedial ____ Special Education ____

Thank you very much for the generous giving of your time and your cooperation.

Milton Knobler, Director
Project SEE



UNION TOWNSHIP PUBLIC SCHOOLS, UNION, N. J.
Producer District for ESEA Title III Project SEE

A Administrative Offices - 2369 Morris Avenue

S Project SEE office - Hamilton School

DEMONSTRATION SITES

1 Battle Hill School
2 Connecticut Farms School
3 Franklin School
4 Livingston School
5 Washington School

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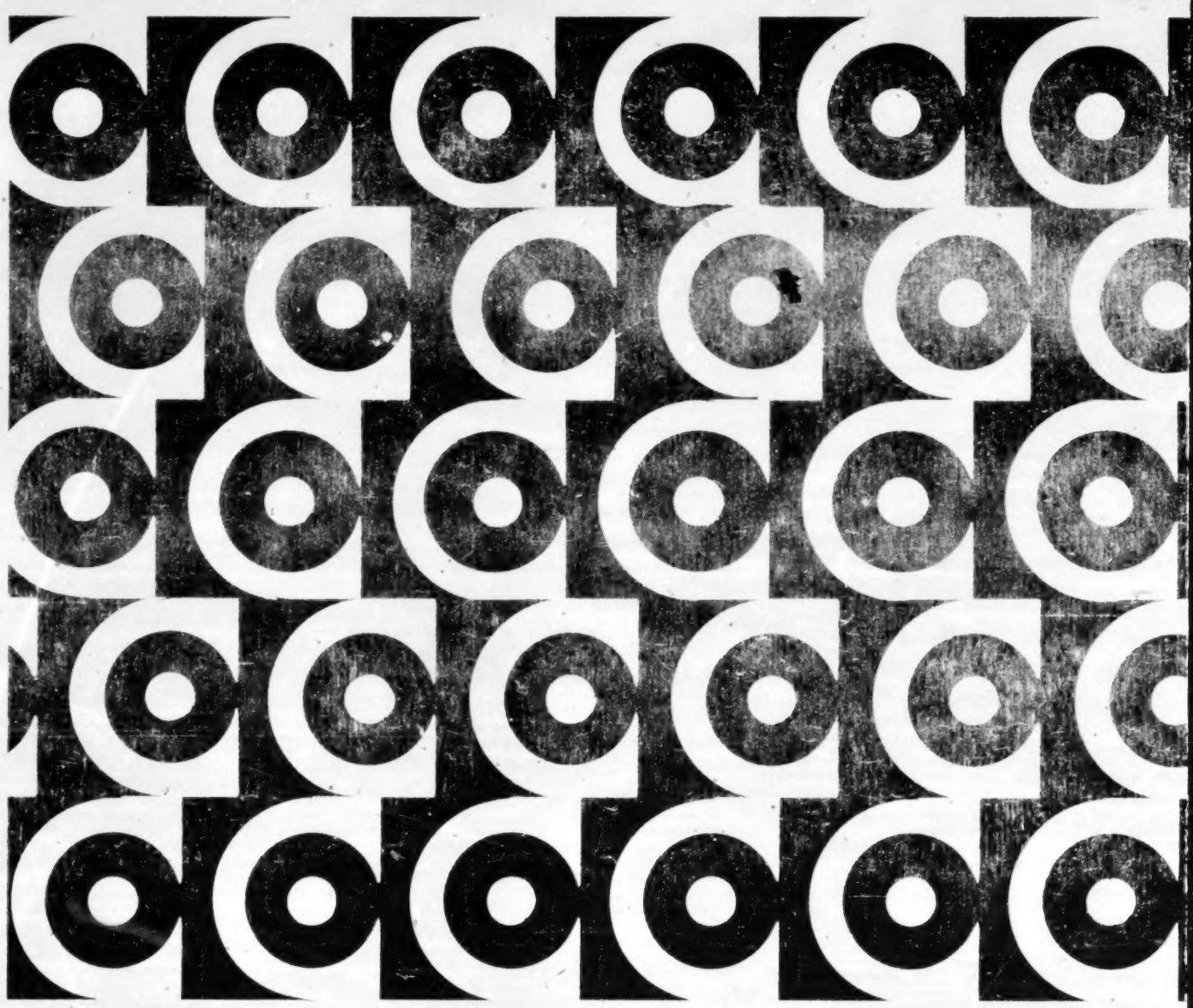

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